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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,960	11/23/2005	Peter D Kozei	B1075.70036US02	1630
23628 7590 12/27/2007 WOLF GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206			EXAMINER PAPAPIETRO, JACQUELINE M	
			ART UNIT 3739	PAPER NUMBER
			MAIL DATE 12/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/534,960

Applicant(s)

KOZEL, PETER D

Examiner

Jacqueline Papapietro

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 2-7, 10-15 and 25-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9, 16-24 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

In the response filed October 2, 2007, Applicant argues that the outstanding Office Action mailed on July 17, 2007 was based on the claims as originally filed, rather than the claims as amended by the Preliminary Amendment filed on May 16, 2005. This argument is correct. This Office Action addresses the claims as filed in the Preliminary Amendment on May 16, 2005.

### ***Claim Objections***

Claim 23 is objected to because of the following informalities: Examiner believes there is an extraneous "at" in the second line of the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "the conductor" in lines 6-7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fleischman et al (US 6030382).

Fleischman discloses an apparatus for ablating tissue comprising: a shaft (42, Fig 13); and a tissue-ablation electrode (60) comprising a first end portion (zone 62) and a middle portion (zone 64, proximal of zone 62) supported by respective lengthwise sections of the shaft, wherein the total energy emitting surface area of the electrode per unit length of the shaft is greater for the middle portion of the electrode than for the first end portion of the electrode, due to the spacing of the coil electrode as shown in Fig 13. Since Applicant has not clearly defined the first end portion and the second end portion, it has been reasonably broadly interpreted.

Regarding claim 9, Fleischman discloses the apparatus of claim 1 wherein the electrode comprises a conductor of generally cylindrical shape (the overall shape of the electrode/conductor 60 is cylindrical).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fleischman as applied to claim 1 above, and further in view of Webster, Jr. (US 6090104).

Fleischman discloses the apparatus of claim 1, wherein the electrode comprises a conductor of a generally cylindrical shape (as described above) but does not disclose that the electrode is partially masked. Webster, Jr. teaches partially masking an ablation electrode (125, Figs 15 and 16) with a non-conductive substance (127, column 8 lines 38-54) at least in the first end portion of the electrode. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Fleischman by partially masking the electrode with a non-conductive substance, as taught by Webster, Jr., in order to protect non-target tissue.

Claims 16-24 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleischman in view of Swanson et al (US 5582609).

Fleischman discloses an apparatus for ablating tissue, with the features as described above, and comprising: a shaft (42, Fig 13); and a tissue-ablating electrode (60) mounted to the shaft, the electrode comprising at least a first end portion (zone 62) and a middle portion (zone 64), wherein at least the middle portion is configured and arranged to introduce edge effects in the middle portion, such that, when the conductor is energized, the ratio of a first density of ablation energy emitted in a vicinity of the first end portion to a second density of ablation energy emitted in a vicinity of the middle portion is lower than the ratio would be if the electrode were not configured and arranged to introduce such edge effects in the middle portion (column 10 line 53-column 11 line 7, and column 11 lines 42-53), and wherein the electrode comprises a conductor that is partially masked with a non-conductive substance at least in the middle portion so as to introduce edge effects in the middle portion (column 10 lines 45-52); in combination with an ablation energy generator operatively coupled to the electrode to enable the ablation energy generator to transmit sufficient energy to the electrode to ablate tissue (inherent, see column 4 lines 15-29); wherein the shaft comprises a distal end of an elongated catheter (12, Figs 1 and 2, column 3 lines 45-49), wherein the distal end of the elongated catheter is steerable (by mechanism 18); wherein the electrode is mounted on the shaft such that at least a portion of an end of the electrode is disposed at least partially below an annular surface of the shaft that is adjacent the end of the electrode (see Figs 16-18), wherein the electrode is mounted on the shaft such that at an upper surface of the end of the electrode is substantially flush with the annular surface of the shaft that is adjacent the end of the electrode (see Figs

16-18); wherein the electrode further comprises a second end portion opposite the first end portion (a second, more distal section of zone 54), and wherein at least the middle portion is configured and arranged to introduce edge effects in the middle portion such that the ratio of a third density of ablation energy emitted in a vicinity of the second end portion to the second density of ablation energy emitted in the vicinity of the middle portion is lower than the ratio would be if the electrode were not configured and arranged to introduce such edge effects in the middle portion (column 11 lines 31-53). Fleischman does not disclose an energy emitting area configured in a shape other than a coil.

Swanson teaches a tissue-ablating electrode (52, Fig 11) mounted on a shaft (54) having at least one energy emitting area configured in a shape other than a coil (ribbon 52, column 8 lines 38-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Fleischman by configuring the electrode to have at least one energy emitting area in a shape other than a coil, as taught by Swanson, in order to make the tissue-ablating electrode more flexible.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Papapietro whose telephone number is (571) 272-1546. The examiner can normally be reached on M-F 8am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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